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ABSTRACT

A study examined the pronoun miscues of 32 sixth grade and 24 second grade students reading short prose selections aloud. The miscue analysis led to the identification of text features readers use to assign pronoun reference, the strategies developing readers often employ, and the patterns of correction of pronoun miscues. Specifically, it indicated that young readers used certain text features and consistent strategies to assign reference. In cases where text features aided prediction, the readers did particularly well. Even when they made miscues on pronouns, they frequently were able to correct them when the text did not confirm their original choice. (FL)

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Assignment of Pronoun Reference: Evidence that Young Readers Control Cohesion

by David Freeman

A study of personal pronouns (Freeman, 1986) based on miscue data from the reading of second and sixth grade students (Goodman and Goodman, 1978) provides evidence that young readers control cohesion. These findings are in contrast to a number of other studies of readers' ability to determine reference. In the present study the pronoun miscues of 32 sixth graders reading "My Brother is a Genius" and of 24 second graders reading "Kitten Jones" were analyzed in detail. This analysis led to the identification of text features readers use to assign pronoun reference, the strategies developing readers often employ, and the patterns of correction of pronoun miscues. While the study focusses on the miscues these young readers made, the conclusion is that they are generally extremely successful in assigning reference and constructing cohesive texts.

The researchers conducting this miscue analysis asked the children to read a story aloud. During the oral reading, they marked any miscues. Miscues occur when there is a difference between the observed response to the text and the response the researcher expects. In the examples that follow, the observed responses, where they differ from the expected responses, are handwritten over the corresponding lines of text.

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Review of Research on Pronoun Reference

Research using miscue analysis (Goodman and Gespass, 1983) provides evidence that young readers are successful in the assignment of pronoun reference as they read complete texts that are both coherent and cohesive. These readers seldom substitute one pronoun for another, and when they do, the substitutions are often realizations of the text potential rather than reading errors.

These conclusions based on miscue data contrast with a number of empirical studies (Bormuth, Carr, Manning, 1970; Richek, 1976; Barnitz, 1979; Robbins, 1984) which suggest that the assignment of pronoun reference is difficult for young readers. Common to these empirical studies is the use of short, artificial texts constructed specifically to test readers' abilities to identify coreferents.

Robbins (1984), for example, gave his subjects passages of either one or two sentences to determine if finding antecedents was more difficult inter- or intra-sententially. The subjects were asked to choose antecedents for the underlined pronouns in the sentences from a list of possible answers, using a multiple-choice format. The low scores of some students may reflect their lack of familiarity with multiple choice items. The scores may also be the result, in part, of the brevity of the passages. As Goodman and Gespass (1983) point out,

> "The meaning which any pronoun represents is not only represented at the single point in the text where the pronoun occurs. It can only be assigned at that point if it has been built by the reader into the reader's text. And that can only happen in unusual ways if the text is unusually short, unusually constrained or unusually structured." (70)

If pronoun reference is assigned as part of an active process of text construction, studies using full texts are needed to assess readers' abilities. Accordingly, in miscue analysis complete stories are read aloud. This research is based on a psycholinguistic view of the reading process, which holds that readers construct texts by using cues from the pragmatic, semantic, and syntactic systems of the language as well as by using graphophonic cues. Syntactic cues enable readers to predict points in text where pronouns will occur. Syntactic and semantic cues aid in the assignment of pronoun number and gender. Pragmatic cues - cues from the reader's background knowledge including the specific knowledge gained from reading earlier portions of a text as well as the more general knowledge of conventions for representing speech in writing - are the cues which most often help readers assign pronoun reference in the process of constructing cohesive texts.

Text Features

During reading, reference for pronouns is built up over stretches of text. It is not the case that readers simply look back or ahead to find a coreferent for each pronoun. Instead, they anticipate reference even before coming to the point in the text where a pronoun occurs. They do this by using one or a combination of cues from various text features. A detailed analysis of the pronoun miscues of 56 readers revealed that these features are both anaphoric and exophoric. The specific features the readers studied used to assign reference for personal pronouns included:

1. preceding noun phrases
2. preceding pronouns
3. the dialog carrier position
4. self-reference or direct address in dialog
5. paragraph-initial "I" in first person narratives

Preceding noun phrases A preceding noun phrase is often a proper noun and is defined as a coreferential noun phrase denoting a person or persons preceding the pronoun. An example of a preceding noun phrase occurs in the following passage:

"Our address is 221 Forest Road," I added hurriedly.

That evening Mr. Barnaby telephoned and then came to the house. After he'd talked to...

Here the noun phrase, "Mr. Barnaby", signals the shift in reference from first to third person.

Generally, noun phrases in subject position provided more salient cues than those in object position. Several readers made miscues in the following passage:

After he'd talked to my mother and father for a while, he they...

In this situation, the readers appear to have used the pronoun "he" in subject position as a cue for reference rather than the noun phrase which occurs in object position even though the noun phrase is nearer the miscue site.

Preceding pronouns Using a preceding pronoun to determine reference is generally an appropriate strategy. Again, pronouns in subject position generally provide more salient cues than those in object position. In addition, readers have to treat the dialog and narrative strands of text separately in determining which preceding pronouns provide reference cues. In the following passage, for example, the "I" serving as a dialog carrier intervenes between the two instances of "he".

"How old is he?"
"Eight months," I said, "But he's going on nine."

In order to use the preceding pronoun as a cue for reference, a reader must learn to treat dialog and narrative strands of text separately.

Dialog carriers In addition to the anaphoric reference provided by preceding pronouns and noun phrases, readers have access to at least three types of exophoric reference. One of these is the dialog carrier position. A constraint here is that the dialog carrier must follow a direct quotation, as in the example above. In that case, the reader is given orthographic cues, the quotation marks, to help predict reference. This sort of cue is exophoric since the reader has to rely on knowledge from outside the text - knowledge of how speech is represented in writing.

Self-reference and direct address In dialog self-reference and direct address is also predictable because of readers' knowledge of speech conventions. As long as characters refer to themselves as "I" and address others as "you" readers have little difficulty. On the other

hand, the use of "we" in dialog is less predictable. Several readers made miscues in the following passage:

"Let's see what we can find in the S's," I said.

In the story the narrator is reading dictionary definitions to his eight month old brother. Readers who substituted "I" for "we" in the passage were making logical predictions since the baby brother is not looking for words in the dictionary.

Paragraph-initial "I" A final text feature that provides cues for readers holds only for first person narrations. In such stories if there are no other cues to help determine reference, readers can predict that the first pronoun in each paragraph will be "I". Consider the following passage from the first person narrative, "My Brother is a Genius":

He helped my mother with her coat, and then they were gone.

So education it was! I opened the dictionary...

Here the paragraph break provides a cue that there will be a change in reference. None of the available text features for reference occurs in the first sentence of the new paragraph. In that situation, readers were generally successful in predicting the first person pronoun in the second sentence.

These five text features, then, provide readers with cues that help them predict pronoun reference. Within each of the categories there is variation. Preceding pronouns in subject position, for example, provide stronger cues than pronouns in object position. However, despite the fact that there is variation within the categories, readers do much

better when one of these text features is available than when none of them occurs. Table 1 lists the number of miscues readers made on pronouns that occur at each of the sites listed above and the number of miscues at the high potential sites - sites where none of the usual cues was available.

	NP precedes	PN precedes	Dialog carrier	Self-ref. direct add.	Para. init. "I"	High potential
Story 1						
sites	11	43	43	37	15	44
miscues	13	22	36	4	5	112
Story 2						
sites	9	11	3	20	---	6
miscues	3	1	1	4	---	10

Table 1 Miscues per Site for Two Stories

As Table 1 shows, in the first five categories where cues were availabe readers made a total of 89 miscues at the 192 sites for an average of .41 miscues per site. In contrast, in the sixth category where no cues were available the readers made 122 miscues at 50 sites for an average of 2.44 miscues per site. In other words, readers made about six times more miscues per site for the high potential sites than for the sites where cues were available.

A comparison of the two stories also suggests that there is no cue hierarchy among the five categories that provide cues. That is, preceding pronouns don't necessarily provide stronger cues for readers

than preceding noun phrases across stories. Instead, it is how a category is realized within a particular story that makes that category stronger or weaker. In the second story, for example, readers made only one miscue when there was a preceding pronoun. In that story, though, pronouns were seldom used as dialog carriers, so in determining preceding pronouns readers did not have to separate dialog and narrative strands as they did in the first story.

The miscue data from the two stories demonstrates that when textss provide the necessary cues, readers have little trouble assigning pronoun reference. However, when there is a lack of cues, readers may make incorrect predictions, especially if potentially misleading cues are present. An example of such a site is the following:

I stood looking down at him when we were almost ready to go.

In this portion of text neither of the preceding pronouns serves as a coreferent for "we", there is no preceding noun phrase and no cues from dialog. However, both "I" and "him" are potentially misleading cues that readers might use to assign reference for "we". When readers substitute "I" or "he" for "we" in the passage, they are using appropriate strategies at inappropriate times.

Another site at which several readers made miscues was in the following passage:

Mr. Barnaby took us out of the studio, clear to the front door, patting his face with a large handkerchief. When we were out on the street

Eight of the 32 readers substituted "he" for "we" in this passage. The substitutions may have been caused by the fact that no cues are present to help readers predict "we", but there are cues, such as the preceding noun phrase, Mr. Barnaby, and the possessive adjective, "his", that could have led to the prediction of "he". Miscues on this passage are better interpreted as realizations of the text potential than as an inability to determine pronoun reference.

Reader Strategies

The previous examples suggest that miscues are neither random nor the result of readers' inability to use graphophonic cues to identify words. In fact, since pronouns are short, commonly occurring words, miscues on pronouns are better explained by saying that readers sometimes make wrong predictions than by saying they failed to identify words. A careful examination of instances where readers substituted one pronoun for another shows that in most cases readers used cues from the five categories to assign reference at points in the text where those cues were not appropriate.

A review of the pronoun substitutions readers of these two stories made reveals that the miscues resulted from the application of one of two strategies: pronun maintenance or topic maintenance. Both these strategies are cases of overgeneralization.

Pronoun Maintenance

Often, as the following examples show, readers appear to have adopted the strategy of using preceding pronouns to assign reference.

The mothers whose babies don't win will be mad at you. (your) They might...

"You!" (your) He stood with his (your) feet wide apart.

"Sure," I (I) said. "We could take...

In a little while he (He) was asleep. I went on reading...

he's (He's) a genius. We've got to call....

As these examples show, the preceding pronoun may be adjacent to the miscue site, as in the first example, or may be separated from it by several words. In the second example above the reader actually made two substitutions which resulted in a cohesive text. The third example appears to be a miscue triggered by the use of "we" as self-reference. The last example is interesting in that the reader changed both the pronoun and the contracted form of the auxiliary. In fact, there were no cases in the data where a reader substituted a pronoun and failed to adjust the contracted auxiliary appropriately.

What is common to all five of these examples is the presence of a preceding pronoun with reference identical to the reference of the form substituted. The effect of the substitutions, then, is to maintain pronoun reference at points where reference changes.

Topic maintenance

Pronoun maintenance appears to be a special case of the more general strategy of topic maintenance. In the following examples readers maintained the topic at a point where the topic shifted. They did this by substituting a pronoun coreferential with a preceding noun phrase.

"Mr. Barnaby is a very busy man." He sat...

Mr. Barnaby talked some more with his folks.

Andrew's eyes dropped and then closed. He went on reading.

Here again, the miscues do not appear to be random substitutions. Instead, the readers are using a normally helpful text feature, a preceding noun phrase, as a cue at a point where that cue leads to wrong predictions.

In the same way that many young children utter forms such as "goed" as the result of hypothesizing that all past tense verbs in English are formed by adding -ed to a present tense verb, young readers also overgeneralize. Having learned that preceding pronouns and noun phrases provide useful cues for predicting pronoun reference, they use these cues whenever they are available. And just as young speakers refine their strategies for forming verb tenses by interacting with others in speech events, young readers refine their strategies as they continue to interact with texts.

Although readers may use cues inappropriately with resulting miscues, if their focus is on constructing meaning during reading, they will frequently correct their miscues when their predictions are disconfirmed. An examination of the patterns of correction of pronoun miscues provides further evidence that young readers do, in fact, control pronoun reference.

Patterns of Correction

When a reader substitutes one pronoun for another, there may or may not be disconfirmation. In the earlier example the substitution of "he" for "we" in the sentence "When we were out on the street.." would receive syntactic disconfirmation due to the resulting lack of subject-verb agreement. There are other cases, though, where the substitution of one pronoun for another results in a syntactically and semantically acceptable sentence. This would be the case if a reader substituted "they" for "we" in the preceding example. Nevertheless, the resulting text would not be coherent. In these instances the reader has pragmatic disconfirmation for the miscue since the total passage doesn't make sense. Readers who regularly correct pronoun miscues when there is disconfirmation construct cohesive and coherent texts during reading.

To determine how well readers could correct their pronoun miscues, I analyzed the first 100 miscues for each of four readers. Each miscue was rated as having syntactic, semantic, pragmatic, or no disconfirmation. If the miscue had syntactic disconfirmation, semantic and pragmatic disconfirmation were not considered. Similarly, if the miscue had semantic disconfirmation, pragmatic disconfirmation was not rated. The graphophonic similarity between the observed and expected response for each miscue was also recorded.

The results of the analysis confirm that readers do attend to disconfirming factors in texts. The four readers corrected about 3 times more often when there was some kind of disconfirmation than when there was no disconfirmation ((34% vs. 12%). These figures suggest that

readers frequently use available syntactic, semantic, and pragmatic cues to correct pronoun miscues. The figures only reflect overt corrections. In some cases, readers may have corrected mentally but not uttered the correction.

While readers used syntactic, semantic and pragmatic cues to aid in correction, they did not correct significantly more often when there was graphophonic dissimilarity than when the observed and expected responses were graphophonically similar. Readers corrected 24% of the time when there was graphophonic similarity and 28% when there was no similarity. This finding is surprising considering the time spent during reading instruction on sound symbol correspondences.

Finally, readers corrected pronoun miscues with pragmatic disconfirmation more frequently than they corrected miscues with pragmatic disconfirmation in general (47% vs. 32%). These figures show that readers were able to correct about half their pronoun miscues in cases where those miscues resulted in texts that lacked cohesion. This rate of correction coupled with the relatively low rate of pronoun miscues provides evidence that these readers had good control of pronoun reference.

Conclusions

Evidence from readers' miscues reviewed here indicates that readers use certain text features and consistent strategies to assign pronoun reference. In cases where text features aid prediction, readers do particularly well. Even when they make miscues on pronouns, though, readers can frequently correct when the text provides disconfirmation.

Many of the examples presented here are cases where a reader's response differed from the expected response. These examples, however, should not obscure the fact that readers made correct predictions about pronoun reference a very high proportion of the time. In "My Brother is a Genius" there are 193 nominative personal pronouns, and the story was read by 32 sixth graders. In total, these readers had to assign pronoun reference 6,176 times. The readers made a total of 192 substitutions of one pronoun for another. That means they got the reference right 5,984 times or 96.8% of the time. The 24 readers of "Kitten Jones" had only 19 substitutions of one pronoun for another in 1176 chances for a 98.3% success rate.

Pronoun reference is an important component of text cohesion. Analysis of the pronoun miscues of 56 readers leads to the conclusion that young readers are capable of assigning pronoun reference. To do so, they use identifiable text features and consistent strategies. Even when they make miscues on pronouns, they are generally able to correct in cases where their miscues are disconfirmed. When readers are given cohesive and coherent texts, they clearly demonstrate control of pronoun reference.

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